

Lake Cascade Lake Vegetation Index Results (9-9-2014)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations,

and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake Cascade was 90, placing the lake's vegetative community in the exceptional category.

Thirty six plant species were found during the survey. The native species, pond cypress (*Taxodium ascendens*), was the most dominant species in the lake followed by maidencane (*Panicum hemitomon*). Other native shoreline vegetation included; red maple (*Acer rubrum*), buttonbush (*Cephalanthus*

occidentalis) and swamp tupelo (*Nyssa sylvatica* var. *biflora*).

Unfortunately, Chinese tallow tree (*Sapium sebiferum*), listed as a Category I Invasive Exotic by the Florida Exotic Pest Plant Council, is an invasive exotic that was found at Lake Cascade.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Carr LVI survey (9-9-14).

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Carex</i> sp.	sedge
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cyrilla racemiflora</i>	swamp titi
<i>Diospyros virginiana</i>	common persimmon
<i>Eleocharis baldwinii</i>	road-grass
<i>Eleocharis cellulosa</i>	gulf coast spikerush
<i>Eupatorium capillifolium</i>	dogfennel
<i>Gelsemium sempervirens</i>	evening trumpet flower
<i>Ilex myrtifolia</i>	myrtle dahoon
<i>Juncus repens</i>	lesser creeping rush
<i>Lachnanthes caroliana</i>	redroot
<i>Leersia hexandra</i>	southern cutgrass
<i>Leucothoe racemosa</i>	sweetbells
<i>Litsea aestivalis</i>	pond spice
<i>Ludwigia leptocarpa</i>	anglestem primrose willow
<i>Ludwigia suffruticosa</i>	shrubby primrose willow
<i>Luziola fluitans</i>	southern watergrass
<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Myrica cerifera</i>	wax myrtle
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Panicum hemitomon</i>	maidencane
<i>Pinus taeda</i>	loblolly pine
<i>Rhexia mariana</i>	Maryland meadowbeauty
<i>Rhynchospora</i> sp.	beaksedge
<i>Saccharum giganteum</i>	sugarcane plumegrass
<i>Sacciolepis striata</i>	American cupscale-grass
<i>Sagittaria lancifolia</i>	duck potato
<i>Sapium sebiferum(I)</i>	Chinese tallow tree
<i>Smilax laurifolia</i>	laurelleaf greenbrier
<i>Smilax rotundifolia</i>	bullbrier
<i>Sphagnum</i> sp.	sphagnum moss
<i>Taxodium ascendens</i>	pond cypress
<i>Toxicodendron radicans</i>	eastern poison ivy
<i>Triadenum virginicum</i>	marsh St. John's wort
<i>Xyris</i> sp.	yellow-eyed grass

I - Category I Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.